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It is an object of the invention to present a sensed-pressure-data converter having a circuit for reducing a fluctuation of the output due to a fluctuation of a resistance and a resistance changing characteristic of a pressure sensitive resistance element and for reducing the output offset and offset drift of the pressure sensitive resistance element. To achieve the object, the converter of the invention comprises a pressure sensitive resistance element (1), a controller (2). The controller is an electric circuit connected to the pressure sensitive resistance element for detecting the electric characteristic of the element and includes A/D converters (3, 4), a D/A converter (6), and a memory (5). The controller compensates the electric characteristic due to a resistance change of the pressure sensitive resistance element and issues it from the D/A converter (6). pressure-data converter further comprises a temperature sensor connected to the input terminal of the A/D converter in the controller, an adjustment input terminal (7) for inputting an error between the electric characteristic of the pressure sensitive resistance element and a reference electric characteristic into the input terminal of the A/D converter in the controller, which reduces the output offset and offset drift of the pressure sensitive resistance element.





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(54) Title: PRESSURE-SENSITIVE TRANSDUCER

(54) 発明の名称: 感圧変換装置

8.電源 Ŧ 17 選整値 入力端子

5...MEMORY

8...POWER SOURCE

7...ADJUSTMENT VALUE INPUT TERMINAL

(57) Abstract: A pressure-sensitive transducer provided with a circuit for reducing the output offset and offset drift of a pressuresensitive resistor and a circuit for reducing the variation of the resistance value of the pressure-sensitive resistor and the variation of the output caused by the variation of change characteristics of the resistance value. The transducer comprises a pressure-sensitive resistor (1), a control means (2) which is an electric circuit means adapted to measure an electrical characteristic of the pressuresensitive resistor, connected to the pressure-sensitive resistor, including A/D converters (3,4), a D-A converter (6) and a memory (5), and adapted to correct the electrical characteristic changed by the variation in resistance value of the pressure-sensitive resistor and output the correction value from the D/A converter (6), a temperature sensor connected to an A/D input terminal of the control means, and an adjustment value input terminal (7) for inputting the error between the electrical characteristic of the pressure-sensitive resistor and the reference characteristic to an A/D input terminal of the control means. Thus the device is provided with a circuit for reducing the output offset and the offset drift of the pressure-sensitive resistor.

